

#### **IV. B. 19. Energy Supplies and Other Concerns**

- a) Background. The availability of energy resources affecting proposed Rural Development activities warrants evaluation in areas where supplies are limited. Granted, it would probably be a rare occasion, but it is conceivable that a proposed Rural Development project could unduly exhaust remaining energy capacities within a geographical service area.



On a completely different note, energy resources could in some instances produce harmful effects that would also merit a different type of evaluation. Potential ruptures of natural gas transmission lines, propane storage facilities, etc.; the production of electric and magnetic fields along high voltage electricity transmission lines; and the generation of microwave radiation from transmission structures could avail liabilities for the inhabitants of proposed Rural Development funded projects by occurring too near in proximity.





Proposed Rural Development actions should take into consideration possible negative impacts to energy resource supplies and harmful effects of colocation near energy production, transmission, and storage structures.

b) Governing Regulations.

(1) Federal.

- (a) Title III of the Energy Conservation and Production Act, P.L. 94-385, 90 Stat. 1144 et seq., 42 U.S.C. 6831.
- (b) Title 7, Part 1b and 1c, Code of Federal Regulations, U.S. Department of Agriculture's National Environmental Policy Act.
- (c) National Environmental Policy Act, 42 U.S.C. 4321.

(2) State.

- (a) Residential Building Energy Conservation Act of 1977, SB-159.
- (b) Concerning the Establishment of Energy Efficiency, Construction, and Renovation Standards for Non-residential Buildings, SB-432.

c) Policy. Rural Development should consider not only direct energy utilization, but also any major indirect utilization resulting from the siting of a project in regard to the availability of energy supplies in the area and the creation of resultant supply shortages.

Building designs and siting should express a similar concern for energy conservation. There is probably room for energy conservation in practically every category of building to which the Nation's programs are directed based on improvements in technology and energy management solutions.

Rural Development should also consider the potential harmful effects from locating proposed activities in close proximity to hazardous energy structures.

Structures involved in the production, transmission, and storage of energy supplies could pose special threats to life and property due to their potential for rupture, explosion, and/or to emit electromagnetic radiation in doses considered harmful to the general populace.

d) Classification.

- (1) Energy supplies.
- (2) Energy conservation.



- e) Agency Jurisdiction. Rural Development's own regulations contain the agency's design criteria for energy conservation with respect to new and renovative construction. These standards are program-specific and set minimum levels of expected thermal performance.

The U.S. Department of Energy (DOE) provides general oversight of the Nation's energy supplies and hazards posed by them. They may be contacted at:

U.S. Department of Energy  
Denver Regional Office  
1617 Cole Boulevard  
Golden, Colorado 80401

(303) 275-4826

<http://www.eren.doe.gov/dro/>

The State of Colorado has developed "*Model Energy Efficiency Construction and Renovation Standards for Non-residential Buildings*" to set minimum thermal performance standards for this category of the construction sector.

- f) Location of Resource. Rural Development proposed actions typically are not expected to impact subsurface energy deposits but rather transmitted processed fuels. Local energy providers should be consulted with respect to the availability of energy resources for Agency financed projects prior to funding commitment by Rural Development.

Harmful energy transmission and storage structures within project impact areas should be identified and their potential threats assessed. Utility rights-of-way should be evaluated in this perspective. Many were originally designed to mitigate certain disaster scenarios, such as electrical power supply transmission line conductor breakage in the air, static discharge, blast diameter, etc. They may also discharge electromagnetic radiation at dosages considered harmful to humans. This aspect is presently under study by DOE and other agencies and groups.

- g) Other References.

- 1) U.S. Department of Energy

(Home page web-site)

<http://www.doe.gov>



2) U.S. Environmental Protection Agency

*"Energy Star Heating and Cooling"*

(Conservation and budgeting tips web-site)

<http://www.epa.gov/appdstar/hvac/index.html>

3) Electric and Magnetic Fields Research and Public Information Dissemination Program

(Government web-site contains a compilation of reports and studies on electromagnetic fields (EMFs))

<http://www.niehs.nih.gov/emfrapid/home.htm>

4) Nzine

*"The Electromagnetic Radiation Health Threat"*

(Interesting web-site contains dissertations on the health effects of electromagnetic radiation exposure)

<http://www.nzine.co.nz/features/heilcherry.html>